



TRINITY HOUSE

Enhanced Radar Positioning System – Draft Roadmap



TRINITY HOUSE

ERPS – The challenge ahead

- The development of the smartphone over the last 30 years came about with a potential 6,000,000,000 users to drive innovation and generate interest and profits.
- The development of a new marine positioning system with open source software offering a resilient back up to an already good and freely available system, albeit rather vulnerable has c. 75,000 potential customers.
- The incentive to invest in this development will require good evidence to persuade manufacturers, users and legislators that this is worthwhile
- There are various contenders for resilient PNT and GNSS back up systems, this is one of them which has been proven and is viable



TRINITY HOUSE

Steps to development

- Identify International standards required
- Promoting the value of ERPS to the marine community
- Development of standards
- Further trials
- Test standards – test and prove
- Accuracy and technology improvements as the system matures
- Available on the market for early adopters
- IMO approval and potential mandated carriage
- Adoption by AtoN Authorities
- Adoption on certain ship types



TRINITY HOUSE

Identify International standards required

That is what we are starting to do here.

The concept has been proven in trials and is regarded as a viable technology to develop for resilient GNSS independent PNT.

The global standards bodies need to be identified and approached to support the need for standards before this technology can be adopted.

It can take c. 2 years to get this on the agenda of the various bodies



TRINITY HOUSE

Promoting the value of ERPS to the marine community

Presenting to IMO and securing their support in the ERPS concept

Promoting this as a viable and worthwhile technology to

- Racon Manufacturers
- Radar Manufacturers
- Ship owners
- AtoN Authorities to invest in.



TRINITY HOUSE

Development of standards

Once identified, the standards for message detail and performance will need to be developed and tested.

Further trials

Trials completed in Singapore and Europe show promising outcomes. Each trial will provide data to improve the technology for accuracy, use in busy areas and presentation.

More trials will be needed.



TRINITY HOUSE

Test & performance standards

Standards for testing and performance will need to be developed, these will be informed by trials and experience as the technology develops

Accuracy

Accuracy improvements will emerge as the system becomes more mature before the final product specification is agreed.



TRINITY HOUSE

IMO approval and potential mandated carriage

This will take some time and much debate at IMO

It maybe that early adopters are the niche users such as military, survey or national infrastructure users such as ferries.



TRINITY HOUSE

Adoption by AtoN Authorities

Interest in this will vary, it has great potential but will be expensive to place a Racon along the coast every 30 nautical miles or so.

This will be where the degree of risk and volume of traffic supports such an investment



TRINITY HOUSE

Timescales

These are unknown and will depend on a number of factors including political, financial and risk appetite,
15 years?



TRINITY HOUSE

Trinity House
Tower Hill
London
EC3N 4DH
020 7481 6900
enquiries@trinityhouse.co.uk